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(71) Applicant(s)

Clive Alan Bates
95 Garrick Close, Ealing, LONDON, W5 1AT,
United Kingdom

(72) Inventor(s)

Clive Alan Bates

(74) Agent and/or Address for Service

Clive Alan Bates
95 Garrick Close, Ealing, LONDON, W5 1AT,
United Kingdom

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(56) Documents Cited

GB 1540734 A US 4669627 A US 4157763 A

(58) Field of Search

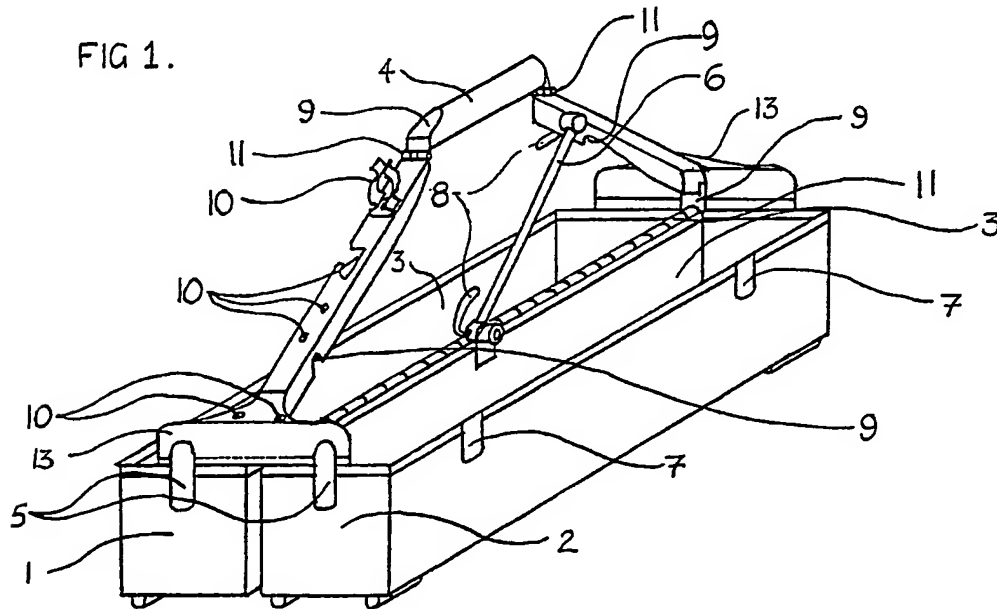
UK CL (Edition K) B8P PH2
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Online databases:WPI,claims

(54) Collapsible toolbox

(57) A toolbox, eg a floorbox, comprises a box which is formed by a Base or Bases (2) and a Lid or Lids (1) which form stabilized (13) storage areas (3) when the box is opened. Means is provided for handle(s) (4), which may be collapsible and/or hinged (11), to be releasably secured (5) to the Lid(s) (1) and Base(s) (2). Means can be provided for stabilizing the removable handle(s) by restricting unwanted movement (6). This can itself be releasably secured (8).

The handle can be provided with means to accomodate tools and/or other items (10) and/or to facilitate a reduced surface area (9).

When the toolbox is closed means is provided for the toolbox to be fastened (7) and a strap (12, fig 2) is provided for carrying the toolbox with the removable handle(s) stored therein or thereon.



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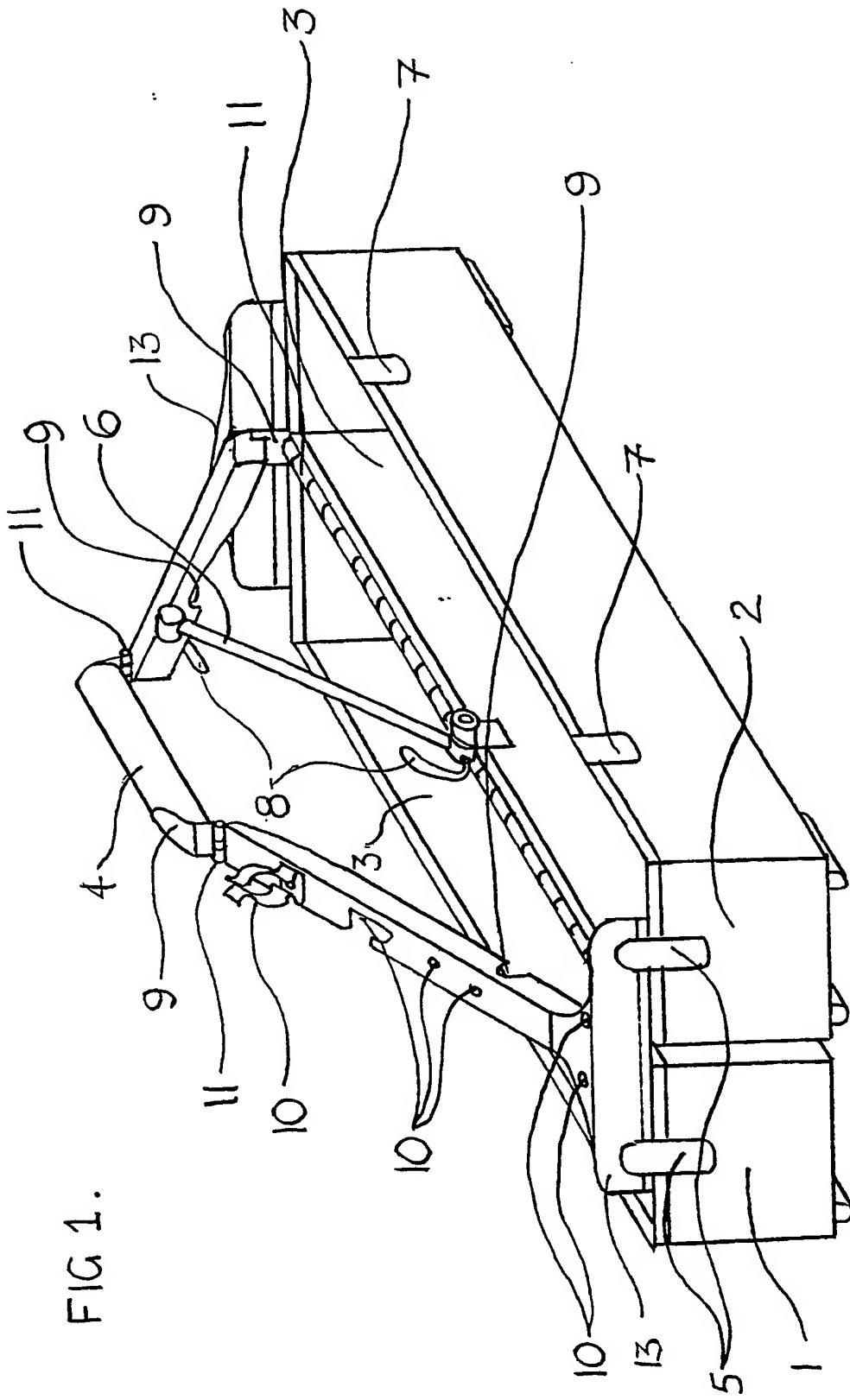


FIG 1.

FIG 2

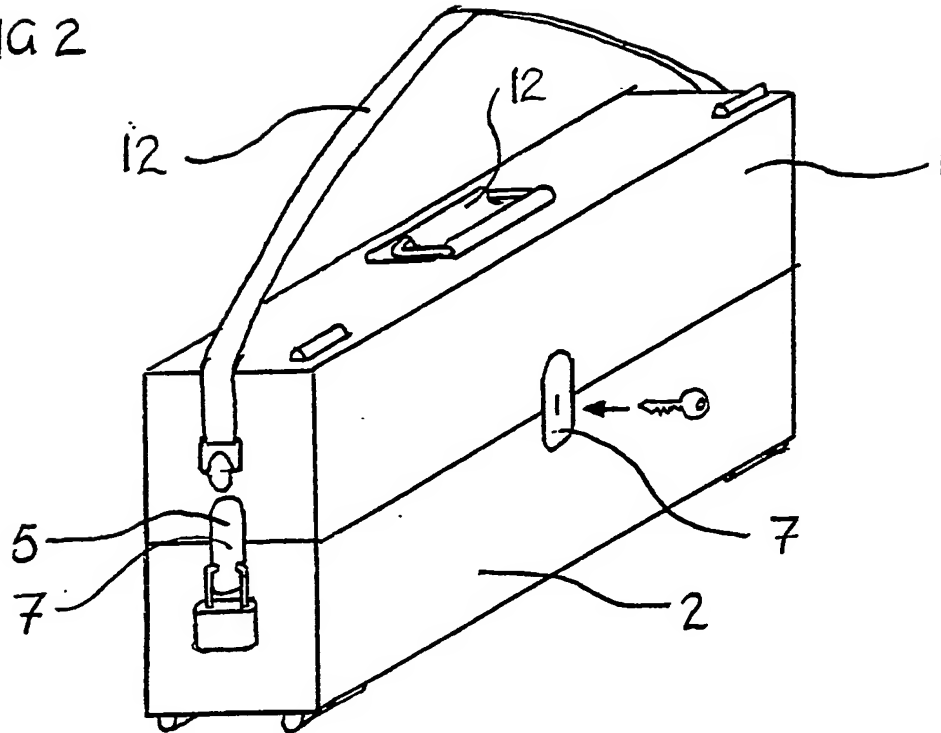


FIG 3

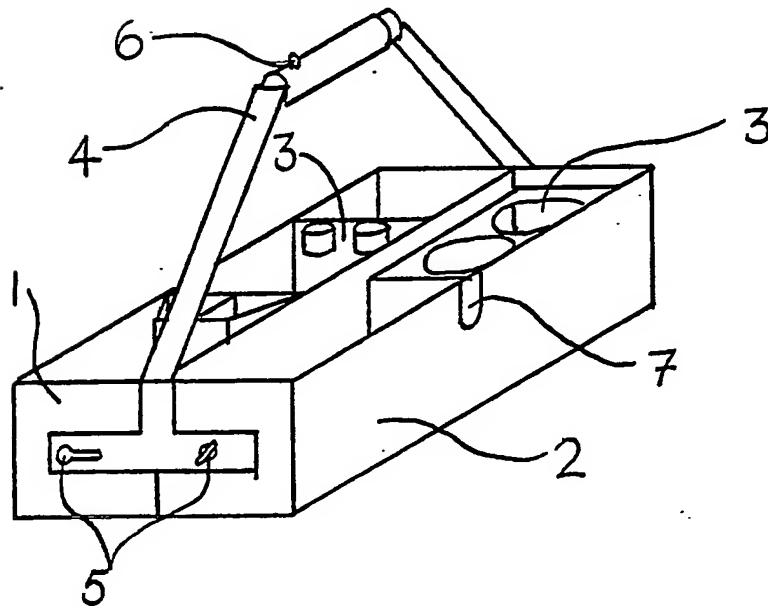


FIG 4

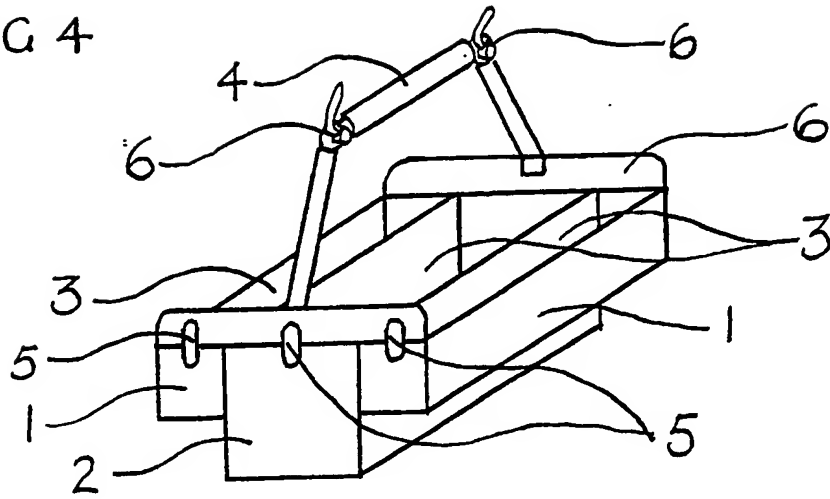


FIG 5

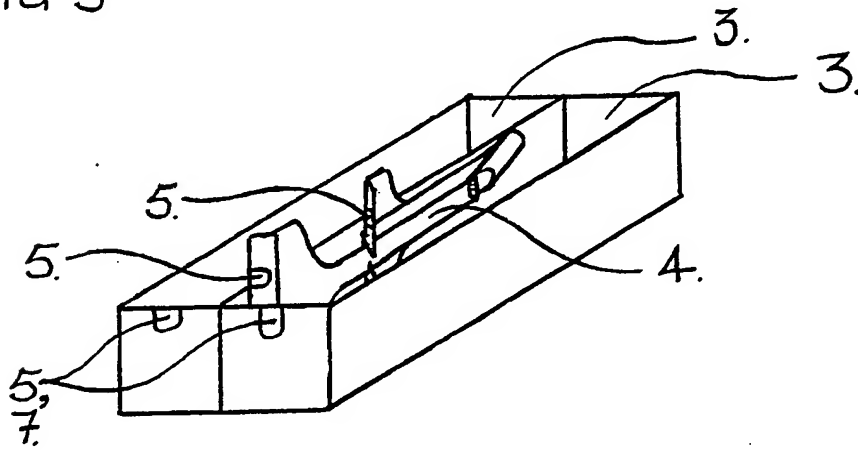


FIG 6

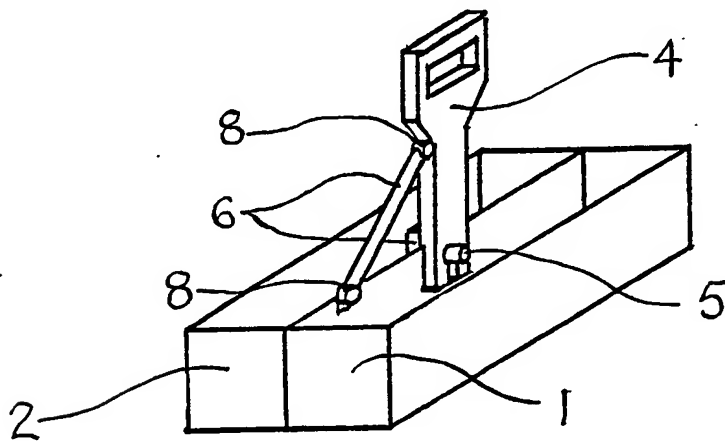


FIG 7

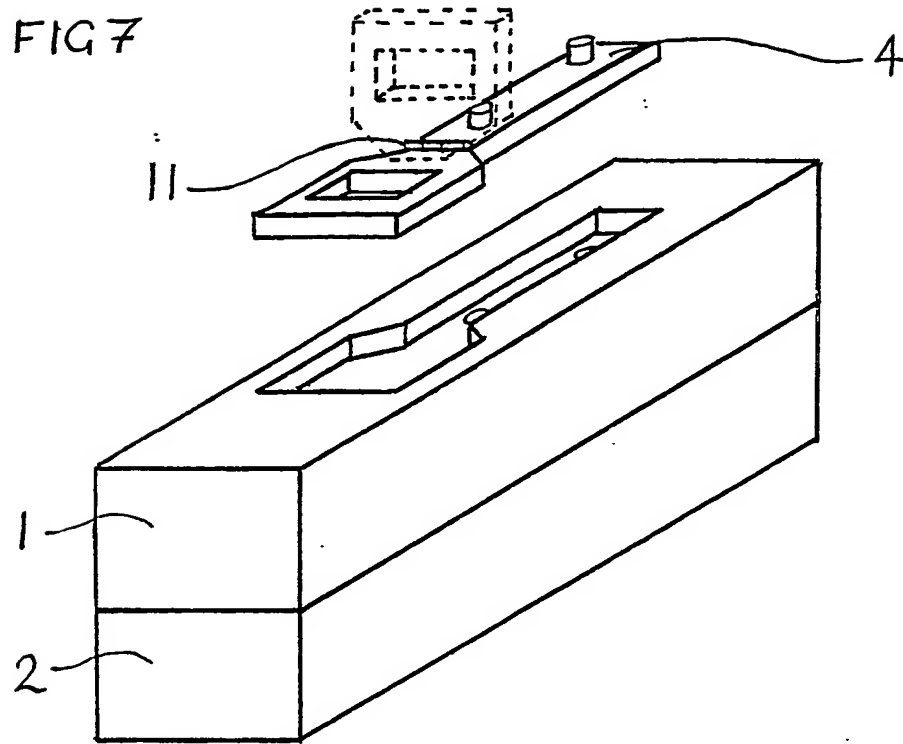


FIG 8

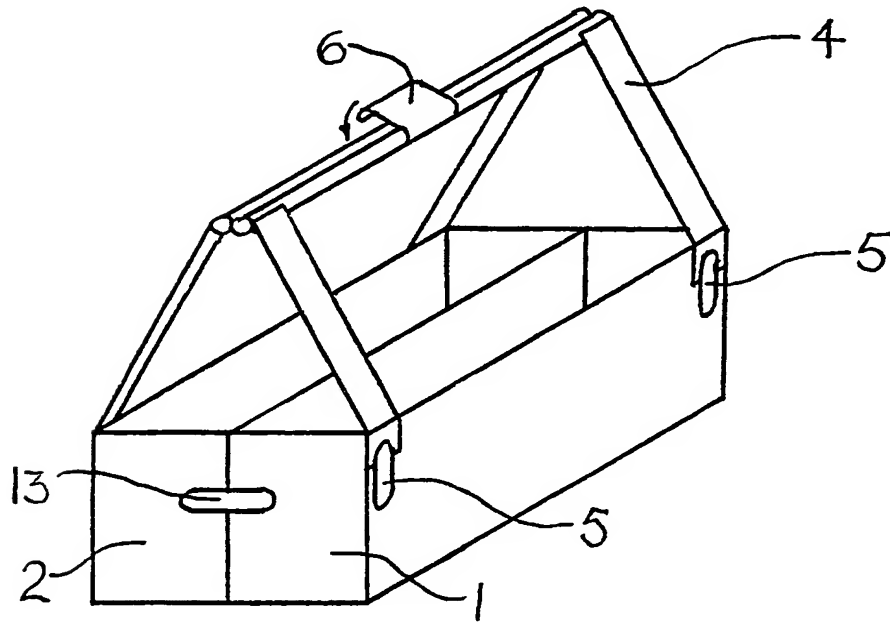
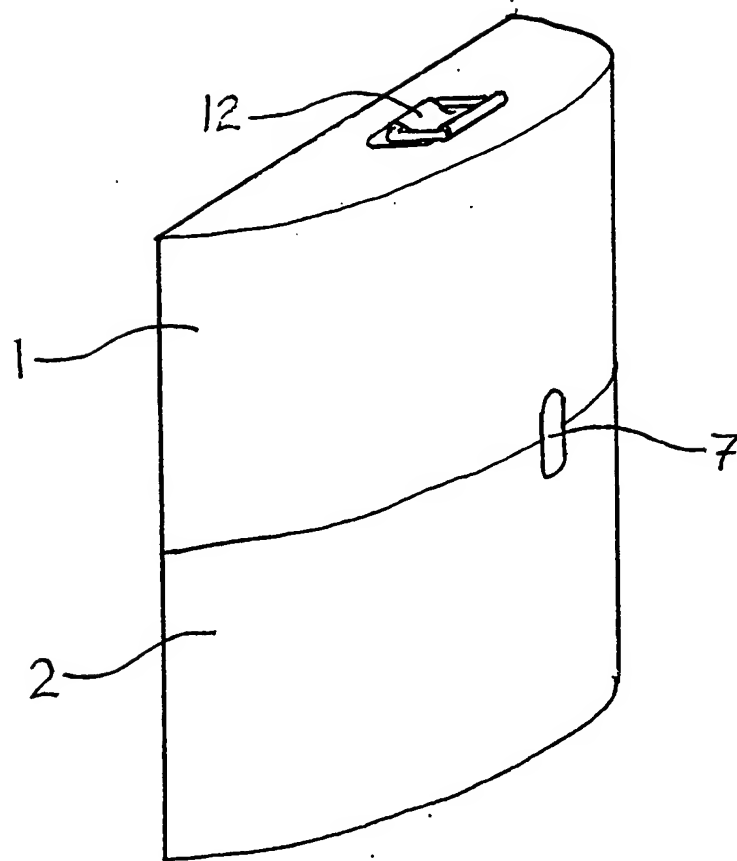


FIG 9



DESCRIPTION

COLLAPSIBLE TOOLBOX

This invention relates to a collapsible toolbox.

Toolboxes are well known containers which are used for carrying tools and/or articles and/or materials. There is a particular type of toolbox, being used in the Film Industry, which is known as a floorbox. Floorboxes are used for carrying tools and/or camera equipment and/or scripts and/or other items not mentioned. A floorbox consists of; a box without a lid, which forms at least one storage compartment being provided with a handle; said handle being positioned near and above the centre of gravity of the aforementioned box (when said box is empty). Thus the articles which are stored therein are easily carried and accessed.

However, floorboxes, because of their shape and size, are impractical as a means of long term storage and are awkward to transport when taken on long journeys; especially by air. As far as I am aware floorboxes have not been made in folding or collapsible forms and do not provide a secure means of carrying clapperboards. I also feel that there is a need to make available a box which is large enough to be used for storing the minimum amount of Clapperloading equipment being taken on long journeys.

According to the present invention there is provided a collapsible toolbox comprising a container or containers in the form of a lid or lids and a base or bases, at least one removable handle, means for releasably securing said removable handle (or handles) to the container(s) and means for storing the aforementioned handle(s) therein or thereon; in such a way as to provide storage space for tools and/or camera equipment and/or other items not mentioned, within said container(s).

It will be understood that Figs 1 to 9 herein serve as an illustration of possible embodiments of the invention only, and certain novel features of the invention have been shown and described with reference to the drawings and are pointed out in the annexed claims; it will be understood that there may be additions and/or retractions and/or changes made in the skilled in the art, without departing drawings by persons skilled in the art without departing from the spirit of the invention.

(cont'd)

DESCRIPTION (CONT'D)

COLLAPSIBLE TOOLBOX

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawings in which :-

FIG 1 illustrates the container(s) being in an opened state with a removable handle in position thereon.

FIG 2 illustrates the container(s) being in a closed state.

FIG 3 illustrates a partitioned container(s) without hinge(s), a stabilized removable handle without hinge(s) and an alternative method of securing and assembling said removable handle.

FIG 4 illustrates a possible variation of the aforementioned collapsible toolbox design.

FIG 5 illustrates means provided for storage of the handle(s) within said containers.

FIG 6 illustrates a variation of this invention.

FIG 7 illustrates a different interpretation of the means provided for storage of the aforementioned removable handle(s) where said removable handle itself provides means for carrying the toolbox when stored.

FIG 8 illustrates a toolbox with two removable handles and separate means provided for stabilizing the container(s).

FIG 9 illustrates a toolbox of a different shape.

Referring to the drawings the toolbox comprises a lid or lids(1) and a base or bases(2) which when opened form two or more storage areas(3). Attached to these storage areas is a releasably securable handle which can be collapsed to facilitate its own storage within or upon the aforementioned lid(s) and base(s). The toolbox can then be closed by joining the lid(s) and Base(s) and can be transported whilst containing various items within.

In order to assemble the toolbox the lid(s) and Base(s) must be detached and must lay side by side. It is usual for these parts to be hinged but it is not essential. The removable handle(s) is removed from the toolbox and attached to the lid(s) and/or base(s). The removable handle(s) may also provide means for stabilizing the lid(s) and/or base(s) when it is attached

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GLOSSARY TO DRAWINGS

1. Lid.
2. Base.
3. Storage area.
4. Removable handle(s).
5. Means of attaching removable handle(s) to container(s).
6. Means provided for stabilizing the removable handle(s).
7. Means provided solely for securing the container(s) when closed.
8. Means for releasably securing number 6 (above).
9. The handle is shaped here to maximise the storage area for tools and/or camera equipment and/or other items within the container(s) when the handle is placed therein.
10. Means provided for the storage of tools by the removable handle(s).
11. Hinged area(s).
12. Means of carrying the container(s) without the use of the removable handle(s).
13. Means provided for stabilizing the opened container(s).

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CLAIMS

COLLAPSIBLE TOOLBOX

1. A collapsible toolbox comprising a container or containers in the form of a lid or lids and a base or bases, at least one removable handle, means for releasably securing said removable handle (or handles) to the container(s) and means for storing the aforementioned handle(s) therein or thereon; in such a way as to provide storage space for tools and/or camera equipment and/or other items not mentioned, within said container(s).
2. A collapsible toolbox as claimed in Claim 1 wherein a removable handle or handles is releasably secured by means of one or more catch and/or clamp and/or latch and/or fastener and/or hook and/or bolt and/or any other similar item not mentioned.
3. A collapsible toolbox as claimed in Claim 1 wherein means is provided for stabilizing the container(s).
4. A collapsible toolbox as claimed in Claim 3 wherein the means provided for releasably securing the removable handle(s) simultaneously provides means for stabilizing the container(s).
5. A collapsible toolbox as claimed in Claim 1 wherein the removable handle(s) are shaped in such a way as to increase the available storage space within the aforementioned container(s); for tools and/or camera equipment and/or other items not mentioned.
6. A collapsible toolbox as claimed in Claim 1 wherein means is provided for the storage of scripts, stationary, computers, video/audio tapes and other similar items.
7. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for carrying bottle(s) and/or flask(s) and/or any other container(s) not mentioned.
8. A collapsible toolbox as claimed in Claim 2 wherein means for stabilizing the removable handle(s) is provided in addition to the means of securing the removable handle(s) to the container(s).

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CLAIMS (CONT'D)

COLLAPSIBLE TOOLBOX

9. A collapsible toolbox as claimed in Claim 8 wherein the means for stabilizing the removable handle(s) is releasably securable.
10. A collapsible toolbox as claimed in Claim 1 wherein the container(s) are hinged.
11. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for the container(s) to be secured when in a closed state.
12. A collapsible toolbox as claimed in Claim 11 wherein means is provided for fastening the container(s), when said container(s) are in a closed state; which may also provide facility for the security of the contents of said container(s).
13. A collapsible toolbox as claimed in any preceeding claim wherein the collapsible container(s) are secured in a closed state either partly or wholly by the same means used to secure the removable handle(s).
14. A collapsible toolbox as claimed in any preceeding claim wherein means is provided solely for fastening the container(s) after the container(s) have been collapsed.
15. A collapsible toolbox as claimed in any preceeding claim wherein the removable handle(s) are collapsible.
16. A collapsible toolbox as claimed in Claim 15 wherein the removable handle(s) are hinged.
17. A collapsible toolbox as claimed in any preceeding claim wherein the removable handle(s) are extendable.
18. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for the removable handle(s) to be releasably secured to the edge(s) and/or side(s) of said toolbox.

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CLAIMS (CONT'D)

COLLAPSIBLE TOOLBOX

19. A collapsible toolbox as claimed in Claim 15 wherein means is provided for the removable handle(s) to collapse more closely together than would have been possible if said means had not been provided.
20. A collapsible toolbox as claimed in Claim 19 wherein the removable handle(s) can be interlocked when said handle is collapsed.
21. A collapsible toolbox as claimed in any preceeding claim wherein means is provided by the removable handle(s) for said toolbox to be carried in a closed state.
22. A collapsible toolbox as claimed in any preceeding claim, wherein means is provided for carrying the container(s) without use of the removable handle(s).
23. A collapsible toolbox as claimed in Claim 22 wherein the means for provided for carrying the closed collapsible toolbox takes the form of strap(s) and/or other flexible material(s) and/or handle(s).
24. A collapsible toolbox as claimed in any preceeding claim wherein means has been provided for the removable handle(s) to store tools and/or camera equipment and/or stationary and/or any other items not mentioned.
25. A collapsible toolbox as claimed in Claim 24 wherein the removable handle(s) are shaped and/or slotted and/or drilled and/or groved provided with clip(s) and/or strap(s) in order to store tools and/or camera equipment and/or stationary and/or any other items not mentioned.
26. A collapsible toolbox as claimed in any preceeding claim wherein the removable handle(s) are hinged.

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CLAIMS (CONT'D)

COLLAPSIBLE TOOLBOX

27. A collapsible toolbox as claimed in Claim 5 wherein 20 per cent. or less, of the space within the collapsed toolbox, is utilised by the removable handle(s) if the removable handle(s) is stored therein.
28. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for partitioning said toolbox.
29. A collapsible toolbox as claimed in Claim 28 wherein means is provided for the collapsing and/or folding and/or removing of the aforementioned partition(s).
30. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for the container(s) to be shower resistant and/or water resistant; either wholly or partly.
31. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for said toolbox to be either wholly or partly resistant to radioactivity.
32. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for said toolbox to be resistant to light either wholly or partly.
33. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for said toolbox to be resistant to impact either wholly or partly.
34. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for said toolbox to either partly or wholly support a weight of at least 130kg.
35. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for said toolbox to be resistant to gases and/or fluids and/or liquids and/or chemicals and/or hazardous substances and/or electricity and/or magnetism and/or corrosion; either partly or wholly.

(contd)

CLAIMS (CONT'D)

COLLAPSIBLE TOOLBOX

36. A collapsible toolbox as claimed in any preceeding claim wherein the container(s) are wholly or partly provided for the transportation and/or storage of liquid(s).
37. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for said toolbox to be resistant to temperature(s); either partly or wholly.
38. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for said toolbox to be resistant to fire; either partly or wholly.
39. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for said toolbox to be either partly or wholly resistant to dust.
40. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for the contents of the container(s) to be either partly or wholly viewed and/or ascertained when said container is in a closed state.
41. A collapsible toolbox as claimed in any preceeding claim wherein means is provided for the container(s) to be substituted and/or replaced by another container or containers.
42. A collapsible toolbox as claimed in any preceeding claim wherein the container or containers are provided with feet which raise said container(s) from ground level.
43. A collapsible toolbox as claimed in any preceeding claim wherein the removable handle(s) are made from rope(s) and/or strap(s) and/or another similar flexible material(s); either partly or wholly.
44. A collapsible toolbox subltantially as described herein with reference to Figures 1 to 9 of the accompanying drawings.

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Patents Act 1977
Examiner's report to the Comptroller under
Section 17 (The Search Report)

Application number

GB 9218256.7

Relevant Technical fields

- (i) UK CI (Edition K) B8P
 PH2
- (ii) Int CI (Edition 5) B65D 25/28
 B25H 3/02

Search Examiner

R W BALDOCK

Databases (see over)

(i) UK Patent Office

(ii) ONLINE DATABASES: WPI, CLAIMS

Date of Search

16 NOVEMBER 1992

Documents considered relevant following a search in respect of claims 1-44

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	GB 1540734 (ASHTON) see especially page 1 line 80, page 2 line 7, Figure 3	1,2,6,7, 10-12,20, 21,28-33, 39,37,39, 43
X	US 4669627 (KAKOOKI) see especially column 3 line 48 - column 4 line 8	1-3,11,12 18,21,30- 32,35,37
X	US 4157763 (BELL AND HOWELL) see especially column 3 line 23 - column 4 line 6, column 4 lines 18-20	1,2,30-40 41

Category	Identity of document and relevant passages	Relevant to claim(s)

Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

&: Member of the same patent family, corresponding document.

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).